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# High-Integrity Voluntary Carbon Markets (VCM): Emerging Issues in Forest Countries

UNDP Climate and Forests Programme

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United Nations Development Programme

One United Nations Plaza, New York, NY 10017, USA

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# Executive Summary

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**Forests are crucial to supporting the Paris Agreement objectives, providing opportunities to deploy climate change mitigation action at scale while contributing to increased climate resilience and protection of biodiversity, ecosystem services, and local livelihoods.**

High-integrity carbon markets can support climate change mitigation efforts by creating an economic incentive for reducing emissions and enhancing removals from the forest sector in a cost-effective manner, enabling countries to raise their climate change mitigation ambition and supporting the transition towards a low-carbon and climate-resilient global economy. While voluntary carbon markets<sup>1</sup> (VCMs) have gained momentum as a means to mobilize significant and much-needed private climate finance for forests, they also face criticism in terms of integrity, including the risk of double claiming.

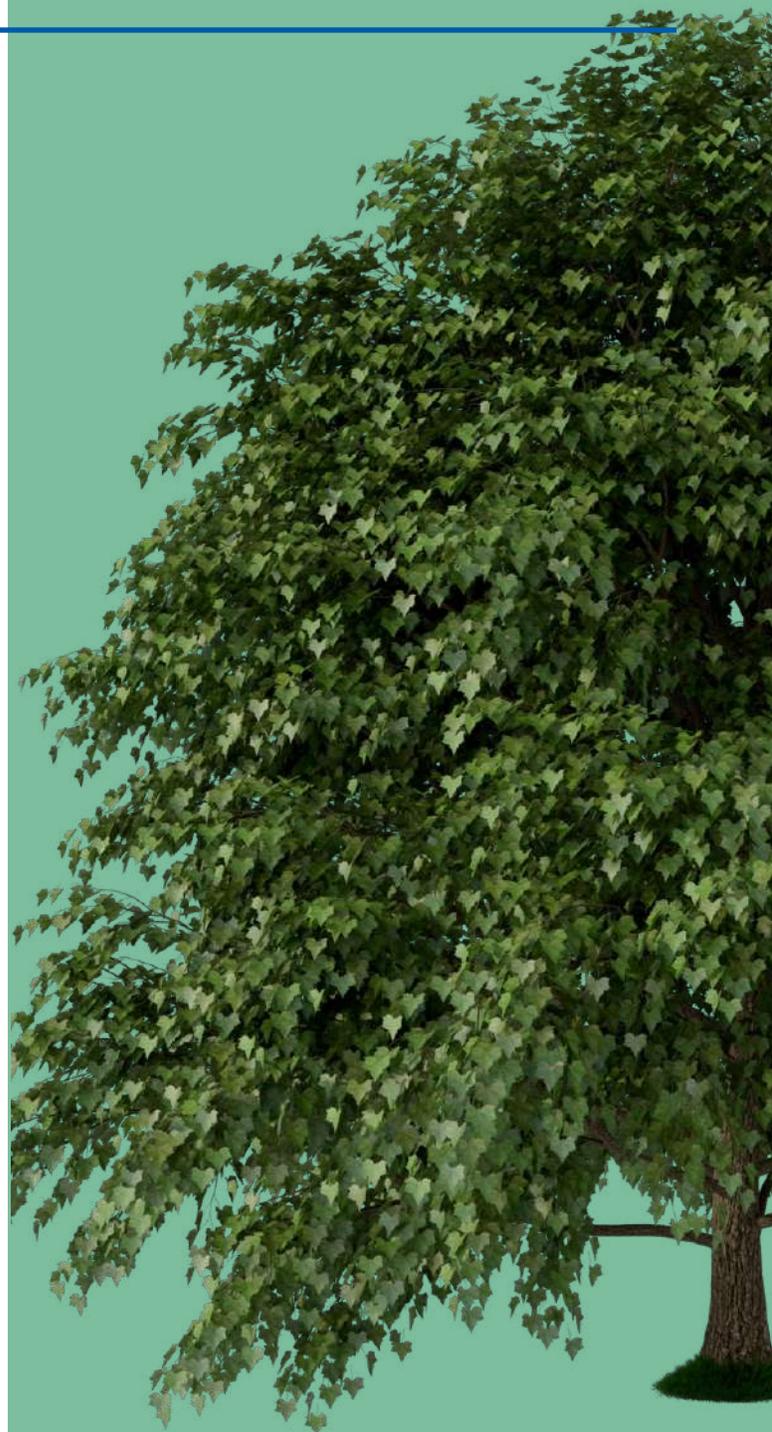
Increased interest in VCMs must be accompanied by efforts to promote high integrity and ensure the use of these markets complements decarbonization efforts under the United Nations Framework Convention on Climate Change (UNFCCC). VCMs can provide important private sector climate finance to support measures to reduce deforestation and forest degradation, and sustainably manage forests in tropical countries. Many of these countries have made important progress over the past 10 years of REDD+ readiness efforts which they can now build on to

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<sup>1</sup> Voluntary carbon markets in this report refer to carbon market transactions that are undertaken by entities on a voluntary basis, not as a result of any policy-related regulatory national and/ or international requirement.

strategically engage in VCMs, for the achievement of their Nationally Determined Contributions (NDCs) to the Paris Agreement.

This report compiles and elaborates on critical issues for tropical forest countries to consider in their engagement as suppliers of high-integrity forest carbon credits to VCMs. The report: (1) presents key elements for high-integrity carbon markets for the forest sector; (2) highlights opportunities, challenges, and possible solutions related to tropical countries' access to high-integrity VCMs, identified through a series of dialogues facilitated by the United Nations Development Programme (UNDP) in 2021, and (3) outlines potential ways to improve and facilitate tropical forest countries' access to high-integrity VCMs.



# Highlights

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Scaled-up REDD+ finance, alongside carbon markets, is needed to promote the long-term sustainability of climate mitigation efforts in the forest sector.

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High-integrity VCMs provide opportunities to mobilize significant private finance to protect forests and support the transition towards a low-carbon and climate-resilient global economy.

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High integrity is commonly associated with environmental integrity risks (i.e. carbon accounting.)

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Additional elements need to be considered for an integrated and holistic approach to ensure high integrity, such as: policy alignment with countries' NDCs and other relevant policy frameworks; directing investments to programmes and projects with demonstrated positive social and environmental impacts; strengthening local governance; and securing the clarity and legitimacy of corporate claims.

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VCM standards have created opportunities to implement forest sector mitigation action at scale, going beyond project-based activities to support jurisdictional REDD+ implementation.

# Highlights

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Aligning project and jurisdictional VCM initiatives with national REDD+ frameworks can help countries optimize access to different climate and carbon finance sources and promote a consistent approach to meet high-integrity requirements.

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Tropical forest countries identify as key challenges: the diversity of carbon market standards with different requirements; the lack of clarity on how the VCM relates to Article 6 of the Paris Agreement and NDC accounting; the alignment of VCM project-level initiatives with national REDD+ frameworks; and limited opportunities to engage directly with the private sector in VCM discussions.

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UNDP is assisting countries to address these challenges through carbon market readiness and VCM access strategies. This includes assessing options for engagement in high-integrity VCMs in accordance with national circumstances as well as providing support to meet VCM requirements, such as enhancing MRV capabilities, policy alignment, and strengthening institutions.

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UNDP also aims to strategically connect national governments with potential donors/buyers and facilitate high-integrity carbon market transactions, and host country dialogues to provide technical information and share knowledge on VCMs.

# Introduction

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# Introduction

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Forests are key to supporting the achievement of the Paris Agreement goal of limiting the increase in the global average temperature to well below 2°C, aiming at 1.5°C. It is estimated that the agriculture, forestry, and other land use (AFOLU) sector contributes 23% of greenhouse gas (GHG) emissions globally, with estimates rising to 80% of GHG emissions in some developing countries (IPCC 2019; Sato et al. 2019). Forests are also crucial for developing countries to achieve their Nationally Determined Contribution (NDC) targets. As of July 2021, 75% of the new or updated NDCs included mitigation measures in the AFOLU sector, with many developing countries highlighting REDD+<sup>1</sup> as priority measures (UNFCCC 2021). However, emissions from deforestation and forest degradation have continued to rise, and global forest loss continues at an alarming rate of around 10 million hectares per year (FAO 2020). Climate finance provided for forest-related mitigation represents between 0.5 and 5% of the investment required to harness the mitigation potential of the forest sector, underscoring the need to enhance support to forest countries (NYDF 2021).

Carbon markets can help address the existing climate finance gap and provide opportunities for tropical forest countries to diversify funding sources and increase investment in the forest sector.<sup>2</sup> If designed with high integrity, carbon markets can lower the costs of climate change mitigation actions by implementing activities in places where it is most cost-effective to do so, supporting the increased ambition of mitigation targets, and enabling the transition towards a low-carbon and climate-resilient global economy. Promoting high integrity in forest carbon projects

<sup>1</sup> Policy approaches and positive incentives for activities related to reducing emissions from deforestation and forest degradation, and the role of conservation, sustainable management of forests, and enhancement of forest carbon stocks in developing countries

<sup>2</sup> Carbon finance refers to the revenue generated by projects through sale of carbon credits in market-based approaches (Gupta 2016). It is different from results-based finance, which in the context of REDD+, is understood as ex-post payments made on the basis of emission reductions that have been achieved and verified (Schneider et al. 2018).

and programmes presents particular challenges, as these are implemented in complex social and environmental contexts and generally have higher risks of reversals and leakage than projects in other sectors (Chagas et al. 2020). If poorly designed, carbon markets can diminish trust and undermine decarbonization efforts and instead increase emissions and costs of abatement (Schneider et al. 2020; WB 2018).

Issuance of forest carbon credits under international market-based programmes has taken place principally in voluntary carbon markets (VCMs), which has prompted discussions over the last decade on the extent to which the rules and procedures in place are sufficient to assure their credibility and integrity. These discussions are being reexamined in the context of increased interest in VCMs, alongside discussions on voluntary cooperation approaches under Article 6 of the Paris Agreement, to identify ways to promote integrity in VCMs and to complement other decarbonization efforts under the Paris Agreement. Tropical forest countries have made important progress over the past 10 years of REDD+ readiness efforts, which provides a basis for their strategic engagement in high-integrity VCMs for the achievement of their NDCs. This report, building on the inputs and perspectives shared during a series of dialogues facilitated by UNDP in 2021 (Box 1), aims to inform and support these efforts.

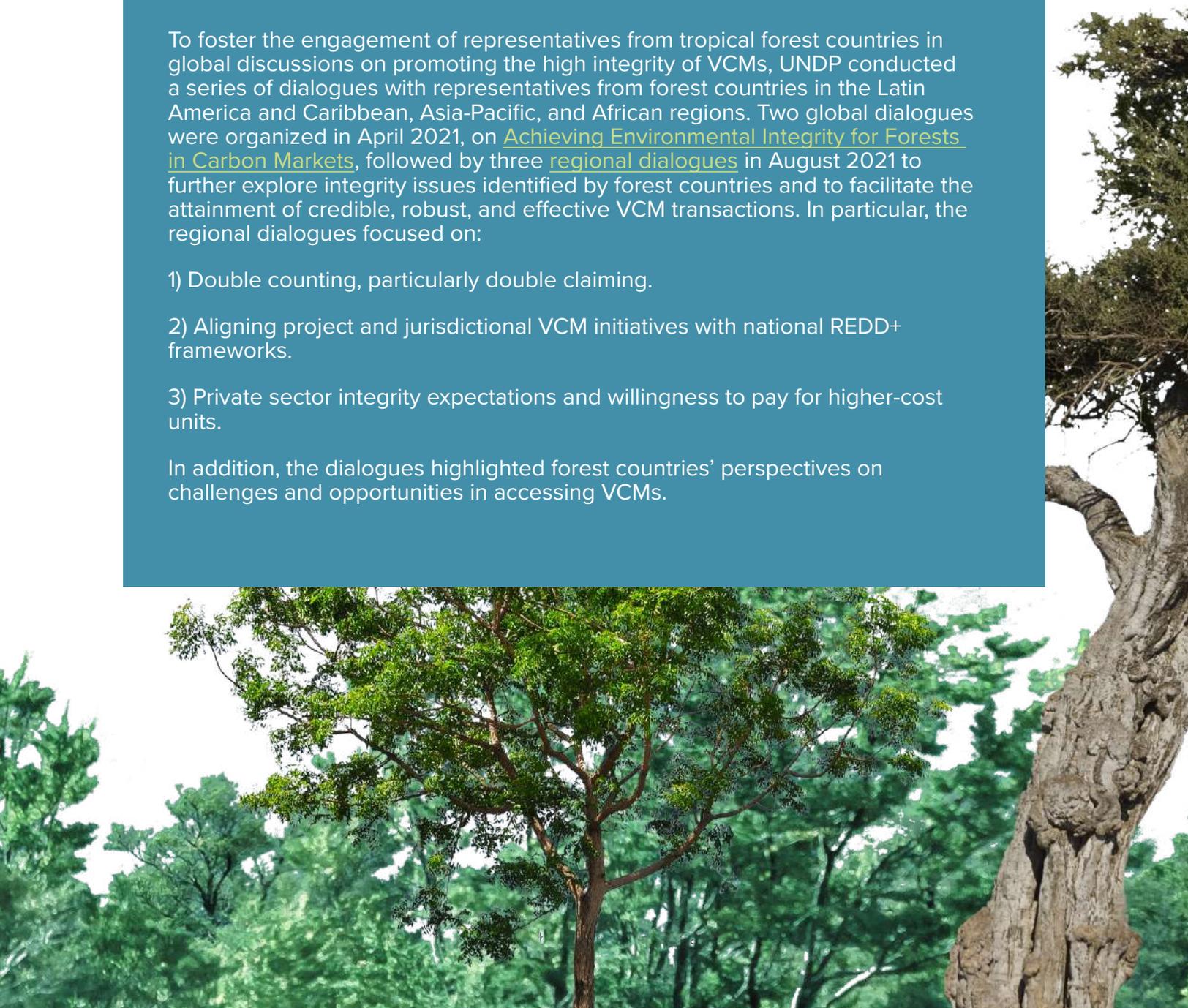
The report is structured as follows: Section 2 outlines the principles associated with high-integrity VCMs and how these can be applied in forest programmes and projects; Section 3 highlights tropical forest countries' perspectives on opportunities, challenges, and possible solutions related to accessing high-integrity VCMs; and Section 4 presents the conclusions and key messages.

### **Box 1. Dialogues with tropical forest countries on emerging issues in VCMs**

To foster the engagement of representatives from tropical forest countries in global discussions on promoting the high integrity of VCMs, UNDP conducted a series of dialogues with representatives from forest countries in the Latin America and Caribbean, Asia-Pacific, and African regions. Two global dialogues were organized in April 2021, on [Achieving Environmental Integrity for Forests in Carbon Markets](#), followed by three [regional dialogues](#) in August 2021 to further explore integrity issues identified by forest countries and to facilitate the attainment of credible, robust, and effective VCM transactions. In particular, the regional dialogues focused on:

- 1) Double counting, particularly double claiming.
- 2) Aligning project and jurisdictional VCM initiatives with national REDD+ frameworks.
- 3) Private sector integrity expectations and willingness to pay for higher-cost units.

In addition, the dialogues highlighted forest countries' perspectives on challenges and opportunities in accessing VCMs.



# Promoting high integrity of VCM transactions of forest emission reductions and removals

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## 2.1. Forests in the VCM

Carbon markets can provide finance for projects or programmes in the forest sector through the purchase of credits to meet both compliance and/or voluntary reduction targets (Box 2). VCMs have been gaining momentum with a significant increase in net-zero commitments from the private sector. In 2020, the number of net-zero pledges from non-state actors more than doubled, and 1,565 companies adopted net-zero targets (NewClimate Institute & Data-Driven EnviroLab 2020). These commitments or climate targets typically translate into some demand for carbon credits, which can potentially support the implementation of developing countries' NDCs.

Forest-based mitigation activities have been a popular VCM project type in terms of transacted volume and price (Figure 1). In 2021 (through August), forestry and land use projects represented around half of the total volume transacted, while in 2020 and 2019 this category represented 28% and 37%, respectively (Forest Trends' Ecosystem Marketplace 2021). Transacted volumes of REDD+ credits grew significantly from 2020-2021, signaling increased buyer interest (ibid). In the period 2016-2021, projects under the forestry and land use category were among the highest priced at an average of USD 4.39, significantly higher than projects in the renewable energy and energy efficiency categories (USD 1.40 and USD 2.38 respectively) and only surpassed by projects under the household devices category (USD 4.92).<sup>41</sup> Currently, the extent to which prices indicate the quality of carbon credits is not clear as information is not always publicly available. As interest in VCMs rises and companies increasingly value high-integrity credits, price differentiation will likely occur, resulting in the need to improve the transparency of VCM

<sup>41</sup> Data from 2021 represents available information until August. Source: Data compilation from Forest Trends' Ecosystem Marketplace: State of the Voluntary Carbon Market reports 2021, 2019 and 2017.

### Box 2. Voluntary carbon markets

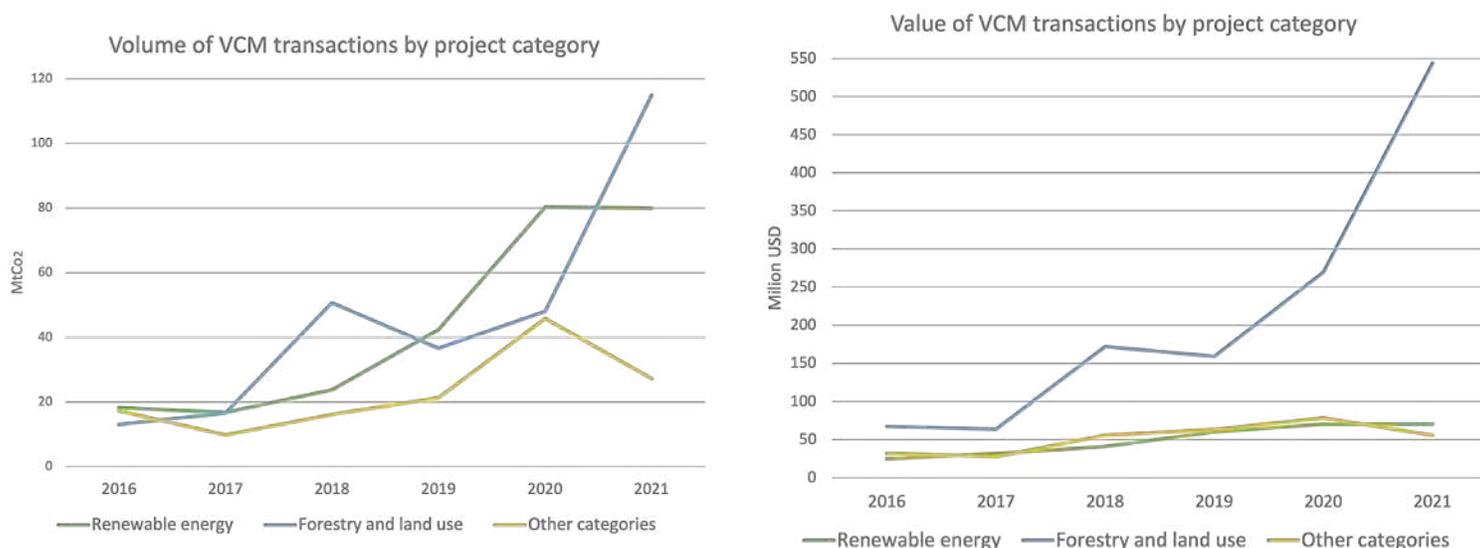
VCMs refer to the collective transactions of carbon credits tracked worldwide that are not purchased to meet mandatory GHG reduction obligations or predetermined targets under a regulated or compliance market. The voluntary carbon marketplace encompasses many discrete transactions of credits purchased with the intent to claim carbon neutrality or other environmental pledges (Forest Trends 2021). VCMs are typically associated with less bureaucracy and lower transaction costs than regulated markets, allowing flexibility to implement projects in the forest sector that may directly reach smallholders and local communities in developing countries, contributing to improved livelihoods.

A carbon credit constitutes the reduction or removal of one metric ton of CO<sub>2</sub> or GHG equivalent beyond business as usual that is used to compensate for emissions that occur elsewhere (VCMI 2021). While the terms carbon credits and carbon offsets are often used interchangeably, carbon credits can be used for purposes different from offsetting. The rationale for using a carbon credit as an offset is that it can enable "equivalent" mitigation outcomes while delivering finance where it is critically needed, as most of the carbon credit supply comes from developing countries (Streck 2021; VCMI 2021). If designed appropriately, carbon credits used for offsetting can also generate environmental and social co-benefits and contribute to sustainable development. Offsetting cannot replace emission reduction efforts that are urgently needed, and regulation to mandate emissions reductions should increase over time.

Several independent standards have surfaced to provide credibility and foster trust in the VCM, serving a quality assurance function for the past 15 years (VCMI 2021). Independent standards are often private and non-governmental organizations that establish the sets of rules for the creation and issuance of carbon credits through various methodologies and procedures. By adhering to these practices, project developers and jurisdictions aim to certify emission reductions and removals achieved by their initiatives into tradable carbon credits.

transactions, including the price paid for forest carbon credits (VCMI 2021).

While many voluntary carbon market standards support forest-based climate change mitigation at the project scale, standards supporting a jurisdictional approach to REDD+ have gained traction since the approval of the Warsaw Framework for REDD+ under the UNFCCC in 2013. Through voluntary carbon market standards supporting a jurisdictional approach to REDD+, credits are generated by large-scale programmes implemented at the national or subnational level (one level down from the national level).



**Figure 1:** Increase in volume and price of forestry and land use transactions. Note: Data from 2021 represents available information until August. Source: Data compilation from Forest Trends' Ecosystem Marketplace: State of the Voluntary Carbon Market reports 2021, 2019 and 2017

Examples include the [Architecture for REDD+ Transactions' Environmental Excellence Standard \(ART/TREES\)](#) - which allows for subnational crediting up to 2030 – and [Verra's Jurisdictional and Nested REDD+ \(JNR\) Framework](#). Large financial commitments from investors are also signaling growing interest in jurisdictional REDD+ credits. These include the LEAF Coalition, a large-scale, public-private climate change initiative to protect tropical forests, which aims to mobilize at least USD 1 billion to purchase jurisdictional REDD+ credits certified by ART/TREES. In its first call for proposals, the initiative received more than 30 proposals from jurisdictions, encompassing over half a billion hectares of forest. Of these, 23 jurisdictions have been determined as eligible for engaging in purchase-agreement discussions with the LEAF Coalition participants, having successfully completed an initial technical screening process.<sup>5</sup>

<sup>5</sup> <https://leafcoalition.org/>

## 2.2. The VCM and the Paris Agreement

While the UNFCCC does not have jurisdiction over VCM transactions governed by private standards (Streck 2021), the definition of the principles, rules, and procedures under Article 6 may help countries define an effective strategy to foster the complementarity of the various mechanisms that can contribute to the achievement of their NDCs. Article 6 of the

Paris Agreement presents new opportunities for voluntary cooperation between Parties to foster higher climate ambition through the NDCs. To do that, it sets out three ways for Parties to cooperate toward climate mitigation goals, with the first two involving the use of international market-based mechanisms.<sup>61</sup> Article 6 also aims to promote sustainable development and environmental integrity.

To promote the environmental integrity of mitigation efforts under the Paris Agreement, it is critical to provide clarity on mitigation actions and ensure that progress is tracked by the different countries towards implementing and achieving their NDCs. To accomplish that, the Enhanced Transparency Framework (ETF) defines the modalities, procedures and guidelines to - among addressing other challenges - ensure that emission reductions and removals are only accounted for under one NDC (Box 3).

Avoiding double counting<sup>10</sup> is a key aspect of robust carbon accounting at the international level and is a critical feature of the ETF. When one country sells and transfers emission reductions or removals to another, both countries must agree on how to adjust their GHG emission figures

<sup>6</sup> Article 6.2: relates to voluntary cooperation between Parties that involves the use of “internationally transferred mitigation outcomes” (ITMOs) towards NDCs of the buyer country. Article 6.2 requires parties to promote sustainable development and ensure environmental integrity and transparency, and apply robust accounting to ensure, amongst other aspects, the avoidance of double counting between Parties. Article 6.4: establishes a mechanism to contribute to the mitigation of GHG emissions and support sustainable development. This mechanism is intended to incentivize and facilitate participation in mitigation by public and private entities authorized by a Party, and to deliver an overall mitigation in global emissions.

<sup>10</sup> Double counting refers to a situation in which a single GHG emission reduction is counted more than once towards the achievement of mitigation commitments and can occur in three ways: double use, double claiming, and double issuance (VCM I 2021)

through corresponding adjustments to the NDCs, in alignment with relevant guidance to be agreed by Parties under Article 6.2. National governments will need to have a process for authorizing the issuance of internationally transferred mitigation outcomes (ITMOs) under Article 6.2 or activities under the prospective Article 6.4 mechanism, as well as defining how these initiatives will be transparently accounted for and systematically reported under the ETF.

While the use of corresponding adjustments in the context of Article 6.2 cooperative approaches is clear, the application of this approach to avoid double claiming in the context of VCMs is subject to debate. Proponents of corresponding adjustments in VCMs argue that this accounting measure can manage the risk of double claiming, increasing the credibility of VCM transactions. In contrast, others view this measure as potentially detrimental to private sector demand for carbon credits, given the associated institutional capacity required to understand the appropriate use of corresponding adjustments in different contexts and the implications for NDCs (Schneider and La Hoz Theuer 2019). Some have also expressed concerns about equity issues. The argument follows that these measures could potentially limit developing countries’ access to private sector finance for the implementation of conditional NDC targets as countries will take longer to set up the operational mechanisms needed to be able to make corresponding adjustments (Chodhury 2021).

Article 6 negotiations under the UNFCCC are still ongoing, though when agreement is reached, this will represent the completion of the Paris Agreement rulebook. This part of the rulebook, along with the modalities, procedures, and guidelines of the ETF referenced above, could provide more information on how to operationalize different elements associated with the environmental integrity of market-based approaches, including the specific circumstances of when

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corresponding adjustments are required and how they are to be applied. However, issues of double claiming outside of NDCs are beyond what can be determined by the UNFCCC negotiations.

### **Box 3. Reporting under the Enhanced Transparency Framework (ETF) including use of Article 6**

Under the Paris Agreement, processes to track national-level efforts have been established to assess whether countries are meeting their NDC targets or goals and whether collectively, the sum of individual contributions is on track to meet the objectives of the Agreement. Transparency under the Paris Agreement specifically refers to the reporting of information by a Party, including information on the GHG inventory, the accounting approach(es) selected, and the indicators used for tracking progress and support provided and received, as well as the review of that information.<sup>7</sup>

Under the ETF all countries are expected to submit both National Inventory Reports (NIRs) and Biennial Transparency Reports (BTRs).<sup>8</sup> NIRs can be submitted as a stand-alone document or as part of the BTR. The modalities, procedures and guidelines for the ETF adopted in decision 18/CMA.1 describe the content to be included in the BTR. According to these guidelines, countries shall provide, as part of the BTR, information on how each cooperative approach promotes sustainable development, ensures environmental integrity and transparency, and applies robust accounting to ensure the avoidance of double counting.<sup>9</sup>

All countries are required, from their second and subsequent NDC, to account in accordance with IPCC methodologies and common metrics to ensure methodological consistency between the NDC and its implementation. As a result, strengthening national GHG inventories and BTRs under the ETF can support tracking progress towards NDC targets and ensure that the contribution of international transfers under Article 6 is understood (Fuessler et al. 2019).

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<sup>7</sup> UNFCCC. Reference Manual for the Enhanced Transparency Framework under the Paris Agreement (2020).

<sup>8</sup> No later than 2024 (except LDCs & SIDS).

<sup>9</sup> 18/CMA.1 para 77

## 2.3. High-integrity of VCM for the forest sector

### 2.3.1 Environmental integrity and existing VCM standards

While there is no single definition of environmental integrity, it is commonly accepted that a carbon market mechanism has environmental integrity if the transfer of credits through that mechanism results in the same or lower aggregated global GHG emissions (Schneider and La Hoz Theuer 2019; Espejo et al. 2020). Environmental integrity is promoted through robust accounting. This means avoiding double counting and assuring the quality of emissions reductions and removals estimates, including that these are real and additional (i.e. resulting emission reductions and removals would not have happened without the mitigation measures implemented) and that issues of leakage and permanence have been sufficiently addressed (Table 1).

Environmental integrity factors	Elements to consider	Risks	Approaches to address the risks
Avoid double-counting	<ul style="list-style-type: none"> <li>Double issuance</li> <li>Double claiming</li> <li>Double use</li> </ul>	Global emissions could increase as a result of international transfers if these are not accounted for robustly	<ul style="list-style-type: none"> <li>Registries and tracing systems</li> <li>Corresponding adjustments</li> </ul>
Promote the quality of emission reductions and removals estimates	<ul style="list-style-type: none"> <li>Additionality</li> <li>Definition of baselines</li> <li>Mitigation uncertainties</li> <li>Address the risk of reversals</li> <li>Avoid leakage</li> </ul>	Emission reductions and removals are not "real"	<ul style="list-style-type: none"> <li>Defining conservative and transparent baselines; use of representative historical averages</li> <li>Precise and accurate quantification</li> <li>Leakage estimation and buffer pools</li> <li>Quantification of random errors</li> <li>Programme design that includes mitigating potential emissions outside the project/programme area</li> </ul>

**Table 1:** Approaches for robust accounting to address environmental integrity. Source: Adapted from WB (2020).

Promoting the environmental integrity of forest carbon transactions in practice is a complex task for several reasons. The AFOLU sector, which is both an emission source and a sink, is highly dynamic and influenced by many external and uncontrollable factors that impact the permanence of results, including weather patterns, demand for commodities, and ongoing climate change (drought, fires, hurricanes, etc.). This is also a sector in which there is a higher level of uncertainty associated with the estimated GHG emissions and countries often lack sufficient data to run uncertainty analyses.

To address these issues, VCM standards have created methodologies, procedures, and validations/verification requirements that take into account the specific considerations of forest projects and programmes, with the objective of attesting to the credibility of forest sector carbon credits. These requirements provide technical solutions to address additionality, permanence, leakage, and the quantification and monitoring of GHG emissions and removals and, in some cases, also assess the sustainable development co-benefits, such as biodiversity or sustainable livelihoods (Chagas et al. 2020; VCM 2021).

However, VCM standards vary in their approaches to promoting environmental integrity. As a result, governments and/or project/programme developers face different financing options that may be more or less appropriate, depending on the national or local context (Granziera et al. 2021). Moreover, the diverse set of rules and measurement methodologies for the VCM, in addition to the lack of a formal oversight mechanism and a standardized framework to assess the effectiveness of these standards, have led to different types of emissions reductions and removals with diverging underlying assumptions and credits of varying quality (Streck 2020; Chagas et al. 2020; Schmidt and Gerber 2016). Currently there is a diversity of REDD+ standards for results-based or market-based approaches with different accounting rules, safeguards requirements and scales (Table 2).

Another important challenge that tropical forest countries have is addressing the potential inconsistencies between the national REDD+ framework with domestic carbon systems and project-based activities from independent VCM standards seeking to transact forest carbon credits (Streck 2020). Many governments have found existing REDD+ projects in overlapping geographical areas when implementing jurisdictional REDD+ approaches (Granziera et al. 2021). While REDD+ results-based finance and carbon market initiatives may come from different financing sources and are independent from each other, they generate emission reductions and removals that may contribute to the NDCs of countries where activities take place (Streck 2020). Countries need to define clear rules and systems to optimize the potential contribution of the various initiatives at different levels and to ensure the fair and equitable distribution of the potential revenues received.



**Table 2.** Example of how double counting is considered by different standards for REDD+ projects and programmes. Source: Adapted from Granziera et al. 2021

Scale/Type	Standard	Double counting
<b>Jurisdictional scale</b>		
Market-based	ART/TREES	Requires disclosure and deduction of any issued emission reductions and disclosure or cancellation of duplicate registration under other programmes to avoid double issuance. At present, voluntary market transactions do not require corresponding adjustments. However, ART participants may authorize transfers of TREES credits for compliance purposes to buyers outside of the participant's country by submitting a Host Country Letter of Authorization and applying a corresponding adjustment. TREES keeps a registry to label units with a corresponding adjustment if required or preferred (e.g. credits sold to another country for use towards their NDC or CORSIA).
	Verra Jurisdictional and Nested REDD+ (JNR)	To avoid double claiming, the standard requires that carbon units used in the context of market mechanisms under Article 6 of the Paris Agreement are labelled and a corresponding adjustment is made to ensure that the same mitigation outcome is not used for more than one international purpose. However, these labels are optional for transacting credits in the VCM and no corresponding adjustment is needed in this case.
Results-based payments	Green Climate Fund (GCF)	Requires that units paid by the GCF are retired without being transferred to the fund and establishes that paid emission reductions will not be eligible for additional results-based payments to avoid double payment. Countries may use paid emission reductions towards the achievement of their NDCs.
	Forest Carbon Partnership Facility (FCPF) Carbon Fund (Tranche A -market; Tranche B - non-market- 95% of transactions)	Tranche A requires countries to transfer their emission reductions to the FCPF. Countries may not use transferred emission reductions for any other purpose.  Tranche B establishes that countries must transfer their emission reductions to the fund but may receive them back. The FCPF will not count them, allowing countries to use them for their NDCs.
<b>Project scale</b>		
Market-based	Verra Verified Carbon Standard (VCS) project-scale REDD+	To avoid double claiming, the standard requires that carbon units used in the context of market mechanisms under Article 6 of the Paris Agreement are labelled and a corresponding adjustment is made to ensure that the same mitigation outcome is not used for more than one international purpose. However, these labels are optional for transacting credits in the VCM and no corresponding adjustment is needed in this case.
	Gold Standard Foundation (GSF) Land Use and Forests Framework & Afforestation/ Reforestation Requirements	Gold Standard has introduced new rules to strengthen the avoidance of double counting. The standard proposes, starting 2025: 1) corresponding adjustments for voluntary offsetting claims (with a transition period for introducing corresponding adjustments depending on the country capacity); 2) alternative claims for credits without corresponding adjustments; 3) working with partners and stakeholders to further clarify and advocate for new clear, credible, and compelling corporate financing claims and mechanisms for financing emission reductions and removals beyond boundaries—alongside traditional offsetting or carbon neutral claims; and 4) enabling the Gold Standard registry to distinguish between the differing claims and use that a given credit is eligible for.

<sup>11</sup> Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA).

<sup>12</sup> Gold Standard. [Key Elements for voluntary carbon projects transitioning to the post-2020 era.](#)

### 2.3.2 Broader aspects of high-integrity VCM: Beyond carbon accounting

The quality of carbon credits is affected by factors beyond carbon accounting and high-integrity VCMs need to consider the **robustness of social and environmental measures in place to safeguard against potential risks and promote co-benefits** associated with the implementation of activities that lead to mitigation outcomes. The inclusion of safeguards as a prerequisite for countries to receive REDD+ finance regardless of the funding source, is a notable achievement by actors concerned that a purely carbon-centric approach to REDD+ would not give due regard to the social and environmental dimensions and potential adverse impacts (Maniatis et al. 2019). There is growing recognition that the quality of a carbon unit (and its associated price) also needs to be defined by the extent to which the actions leading to results effectively embed core international standards related to human rights, equity, participation, and governance, among others.

For over 10 years, tropical forest countries and the diverse set of actors supporting them have worked hard to interpret and clarify the UNFCCC safeguards requirements and test their application, while also applying and creating their own institutional safeguards and associated guidance and tools—with mixed results (Maniatis et al. 2019). Notable progress has been made in gaining clarity on the level of quality and types of safeguards information and systems expected to meet safeguards requirements across a range of funding sources for results-based finance (GCF, multi-lateral programmes, bi-lateral agreements, FCPF). This progress has, in turn, led to concrete and valuable lessons that can inform countries' approaches and strategies for meeting VCM requirements, as well as be incorporated into key considerations on high integrity in VCMs. ART/TREES and Verra JNR, for example, include safeguards provisions aligned to the Cancun Safeguards that are validated and verified by independent third parties annually. The ability to demonstrate adherence to and promotion of these critical components through

robust monitoring and reporting mechanisms will be an important factor contributing to high integrity in VCMs. How well these mechanisms are embedded in and linked to national REDD+ frameworks will also be important.

Keen to avoid adverse impacts, exacerbated conflicts, or violation of rights associated with their investments, there is an increase in demand from private sector actors for quality units with clearly defined and demonstrated sustainable development impacts (including livelihoods, benefit-sharing, promotion of rights, social inclusion, gender equity). In addition, some initiatives promoting high-integrity VCMs have included safeguards-related principles as part of the criteria to foster the quality of credits. The Voluntary Carbon Markets Initiative (VCMI) proposes as part of the principles for high integrity and ambition that business activities ensure social safeguards and support inclusive and resilient livelihoods (VCMI 2021). The Integrity Council for Voluntary Carbon Markets (ICVCM, formally the TSVCM or Task Force on Scaling Voluntary Carbon Markets) includes the principle that VCMs must have high environmental integrity and minimize any risks of adverse impacts, recognizing the need for carbon markets to promote emissions-reduction projects that benefit local communities, preserve ecosystems, and do no harm (TSVCM 2021).

In addition to safeguards requirements, other relevant aspects of high-integrity VCMs include programme governance, the credibility of corporate commitments, and the use of carbon credits. **Robust programme governance** is important for the quality of VCM credits and includes the establishment of transparent provisions and procedures to regulate the programme's activities to effectively support its mission, promote accountability, and avoid fraudulent conduct, as well as robust third-party auditing and verification processes (Carbon Credit Quality Initiative 2021). It is essential for carbon market standards to provide for

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transparency of transactions happening in countries, so that national and subnational governments can consider this information in their strategies to implement their NDCs.

**Credible private sector commitments** refer to science-based targets built on accurate and complete corporate GHG inventories. The **clarity and legitimacy of use of carbon credits** refers to principles that seek to ensure that corporations prioritize reducing emissions stemming from their own operational and value chain processes, using VCM credits to supplement these efforts (Schneider et al. 2020; WB 2021a; VCMi 2021). Given the scale of mitigation efforts that are needed to ensure long-term decarbonization, several initiatives are considering such principles, including the Voluntary Carbon Markets Initiative (VCMi). These were put into practice by the recent call for proposals from the LEAF Coalition.

While these elements are not directly related to the supply side, it is important to note that the high integrity of VCMs hinges on actions undertaken by both the supply and demand sides. Tropical forest countries can also consider these elements when assessing potential sources of carbon finance and engagement in VCMs.



# Countries' perspectives on accessing high- integrity VCMs

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In 2021, UNDP hosted a series of dialogues with representatives from tropical forest countries to discuss how to promote the high integrity of forest-based mitigation in the context of VCMs. The dialogues underscored that many countries view VCMs as one tool to support national climate policies and NDC targets. Opportunities for accessing VCMs include the potential to develop public-private partnerships, implement multiple interventions, and generate revenue to support forest investments on the ground. Several countries perceive VCMs as less bureaucratic and closer to local actors, including local government and smallholders.

Countries also identified various challenges, including the different scales and scope of implementation of VCM and REDD+ initiatives, limited transparency on carbon market transactions and prices, the diversity of standards with different requirements, limited opportunities to engage directly with the private sector under VCM discussions, ensuring avoidance of double counting, and aligning VCM initiatives with national frameworks. Furthermore, some countries perceive that risks and associated costs need to be more evenly spread across buyer and seller countries to maintain political will from the supply side. In response to these opportunities and challenges, UNDP is supporting tropical forest countries to engage in and access VCMs as part of a diversified financial strategy to support the implementation of NDCs (Box 4). These issues and potential solutions raised by forest countries are discussed in more detail below.

### 3.1 Addressing environmental integrity concerns

The VCM will likely continue to grow in parallel to the Article 6 regulated market under the Paris Agreement. It is important that voluntary and regulated markets coexist and complement each other. In order for that to happen, it will be critical for tropical forest countries to further detail their NDC targets linked to the forest sector, as well as their plans to achieve these goals. The VCM can be an important mechanism to attract private sector climate finance to activities and areas that require

technological investments and on-the-ground piloting of innovative solutions. In those cases where VCM transactions may impact NDC accounting, there needs to be a formal authorization from a national authority, and this information will need to be transparently reported to the UNFCCC. Independent of whether VCMs are linked to Article 6, accounting requirements under the ETF are relevant for tropical forest countries participating in VCMs as well as potentially reporting VCM revenues as international private climate finance contributions to their NDCs.

A prerequisite to facilitate the robust accounting of forest credit transfers is the clarity of NDC targets for the forest sector (Schneider et al. 2018). This involves clearly-defined targets expressed in quantifiable terms (tons of CO<sub>2</sub>e) and information on how countries plan to account for the forest sector. Many NDCs do not quantify forest-related mitigation targets, specify the forest-related actions that the country plans to undertake to meet their NDC goals, and/or provide clear information about the accounting methods that will be employed (Lee and Sanz 2017; NYDF 2021).

Many countries face challenges accounting for forest-based mitigation activities due to disparities in accounting approaches for the land-use sector, including GHG inventories, NDCs, emission reductions under the Warsaw Framework for REDD+, results-based programmes, and VCM crediting initiatives (Schneider 2018). In many countries, REDD+ and GHG inventory systems are not yet aligned, which creates overlapping or competing measurement and reporting systems and prevents consistency across different reports submitted in the context of the UNFCCC (i.e. forest reference emission levels, NDCs, national communications, and Biennial Update Reports) (Bakhtary et al. 2020; Streck 2020).

To address these challenges and avoid double counting, tropical forest countries can align their REDD+ reporting with national GHG inventory estimates to account for NDC targets in the forest sector, building on the experience gained through REDD+. This alignment can support countries to deploy a consistent approach to address common requirements across initiatives (e.g., addressing risks from removals and leakage). To foster such alignment across scales, several countries are considering or developing nested approaches for REDD+.

Nesting refers to integrating smaller-scale activities into larger jurisdictional programmes at the national or subnational levels (Lee et al. 2018). There can be two to three different scales to consider for nesting, depending on the given national circumstances. There are different approaches for nesting, and the design of nested systems will vary based on the specific country's circumstances and objectives. A country seeking to enable direct incentives for local actors might consider a decentralized approach, where the government authorizes the implementation of activities at the project-scale with the participation of private actors that directly market carbon credits (WB 2021b). On the other hand, a country wishing to focus on receiving payments for emission and removals at the jurisdictional scale could pursue a centralized approach where emission reductions and removals are accounted for at the national scale, and projects receive rewards based on GHG performance linked to national performance (WB 2021b).

Nesting can also help optimize access to different sources of climate and carbon finance by allowing countries to organize REDD+ activities at different levels while meeting the various requirements of different public and private sources of finance. However, it is important to note that



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while nesting seeks to support the harmonization of MRV systems and emission reductions and removals, the integrity of these systems depends on the robustness of the overarching national REDD+ accounting, which needs to be coherent with national GHG accounting systems, including those used to account for the NDC (Schneider et al. 2018; Streck 2020). In addition, support will be needed to increase accounting capacities and consolidate functional and operational measurement, reporting, and verification (MRV) systems while ensuring consistency with GHG inventories to and meeting robust accounting requirements under NDCs.

### 3.2 Promoting broader aspects of high integrity

#### Safeguard requirements

As with the varied requirements for robust carbon accounting, the challenge of diverse standards also applies to safeguards. Differences of approaches are evident in expectations with regard to safeguards content and process, monitoring and reporting, and quality assurance and compliance review. Multiple and overlapping standards at various levels (national, subnational, project) from diverse funding sources (market and non-market) often apply simultaneously and in parallel rather than with complementarity. Besides this fragmentation of requirements, the perennial challenges related to safeguards implementation persist, namely: insufficient human and financial resources; inadequate stakeholder engagement; local elite capture (of benefits, representation, decision making); weak monitoring frameworks; and insufficient leverage to catalyze transformational change required to address deeper or more contested issues (e.g. tenure reform, carbon rights) (Maniatis et al. 2019).

One of the greatest challenges countries face in meeting safeguards requirements is the ability to provide concrete evidence of their downstream application during a specific results period and for a specific intervention. This is true for demonstrating conformance with the UNFCCC Safeguards or with safeguards requirements from carbon market

standards. Effectively demonstrating compliance with safeguards requirements under carbon markets standards and being able to provide updated (as well as participatory, quality assured, disaggregated, and aggregated) information on how this is occurring on a continual basis, with annual reporting to be independently validated and verified, requires substantial institutional strengthening and capacity building at all levels, from grassroots, to subnational, to national.

If countries are going to meet demand from private sector buyers and market-based standards for higher-quality units with demonstrated additional sustainable development impacts, there needs to be greater upfront investment in capacities to build robust and integrated systems to be able to implement in line with expectations, while also allowing for a stepwise approach. The cost of producing higher-quality units should also be reflected in the price paid – this will further incentivize and accelerate high integrity in VCMs.

Finally, it is important to support countries to align efforts to meet various safeguards requirements, for example through the creation of one harmonized system with decentralized components. Part of strengthening capacities to address safeguards includes clarifying and simplifying the linkages between the diverse sets of requirements so that efforts are not duplicated.

#### Institutional arrangements in the context of broader climate finance and scaled-up financing needs

When countries understand the landscape of initiatives in their territory and define the means to align different types of VCMs, results-based payments, and domestic carbon market transactions, they can strengthen activities implemented with different sources of finance and maximize the results of their climate change mitigation efforts. This alignment can be fostered through the development of policy and institutional arrangements that reduce risks and create an enabling environment for

national stakeholders and private sector entities to engage in these transactions actively. Many tropical forest countries have been progressively strengthening their relevant regulatory, policy, and institutional frameworks in the context of REDD+ readiness, which can promote a favorable context for VCM initiatives. Still, in many cases, additional regulatory measures and institutional arrangements will be required to align REDD+ results-based payments and revenue from VCM transactions to maximize investments while targeting priority measures in the forest sector.

The most appropriate strategy to address mitigation priorities using different sources of finance will depend on the specific context of each country. It is important to consider each country's circumstances, such as how feasible it would be for them to comply with the different carbon market standards and the level of ambition of their NDC, in order to build a tailored strategy to effectively access high-integrity carbon markets as is currently being done under VCM. Relevant considerations may include whether the country has explicitly allowed the implementation of REDD+ projects in its territory and whether results at different levels will be used towards national accounting or transferred internationally to buyers. Since many tropical forest countries view the different scales and scope of implementation of VCM and REDD+ initiatives as important challenges, there is significant country interest in tools to assess the risks and opportunities of engaging in carbon markets in the context of countries' prior experiences, existing systems, and policy priorities. In some countries, governments are not aware of VCM projects developed in their territories, which raises challenges to supporting a coherent approach for REDD+ implementation. Some countries are developing registries or databases to record VCM projects and facilitate interaction between project developers and governments. Other countries are establishing a formal channel for engagement with the private sector, for example through a non-objection procedure for VCM projects.

In addition to institutional arrangements and regulatory measures, the alignment of various sources of finance can also be supported by the development of partnerships between public and private actors to promote VCM initiatives that support a national approach as well as NDC implementation. Many tropical forest countries consider these partnerships essential to support the alignment of various sources of REDD+ finance and promote the high integrity of VCM transactions. To promote the long-term sustainability of climate mitigation efforts in the forest sector, scaled-up REDD+ funding will be needed alongside carbon markets. Many countries face financing gaps for implementing mitigation activities in the forest sector, which, combined with higher costs from VCMs, can pose a barrier for access and participation. Crediting activities in VCMs in the forest sector face significant costs associated with generating and maintaining emission reductions and removals over time. Investments in forest-based mitigation need longer time scales to achieve sustainable results, but market volatility and uncertainty may limit the ability of tropical forest countries to adequately implement forest-based mitigation and sustain political will in the long term (Schneider et al. 2018). Up-front investments, market transparency, and linkages between public policy goals and programmatic carbon finance could help address these challenges.

It is also important to note that some investors interested in the forest sector are requiring that the revenue generated from VCM transactions be reinvested in activities that further support sustainable development efforts in the territory, and that these financial resources are managed in a transparent manner. The LEAF Coalition requires that the final purchase agreement include an investment framework demonstrating how the supplier will use payments to enhance the ambition of their NDCs and support forest conservation and restoration objectives, including its REDD+ strategy/ action plan. Resources from LEAF will be channeled to the seller country through an accredited Financial Intermediary with the capacity to ensure fund controls consistent with the specific requirements

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of the parties and partners involved (LEAF Coalition 2021). While these requirements help mitigate the risks of VCM initiatives, they also create the need for additional institutional arrangements and capacities and raise the costs of participating in VCMs, which needs to be carefully considered by countries.



# Key messages

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## **High-integrity VCMs provide opportunities to mobilize significant and much-needed private capital to protect forests and support the transition towards carbon neutrality.**

By creating economic incentives for reducing emissions as cost-effectively as possible, VCMs can complement emission reductions required in other sectors and contribute to the Paris Agreement goal of limiting global warming to well below 2°C compared to pre-industrial levels. Ensuring high integrity is crucial for VCMs to deliver their objectives and foster collective ambition in the context of the Paris Agreement. If poorly designed, VCMs face the risk of diminishing trust and undermining decarbonization efforts.

## **While high integrity is often associated with environmental integrity, there are additional elements related to the use of carbon credits, particularly programme governance, and social and environmental safeguards, that need to be considered for VCM activities in the forest sector.**

Transparency and robust accounting enhance the quality of emission reductions and removals estimates and ensure that emission reductions and removals are real. In addition to environmental integrity, high-integrity VCMs also rely on private entities' real commitments to reduce emissions from their own operational and value chain processes. These broader aspects that affect the quality of units need to be considered for high-integrity VCMs, such as the robustness of social and environmental safeguards, strong programme governance, and NDC ambition.

## **VCM initiatives in the forest sector have opened opportunities to implement forest-based mitigation at scale through jurisdictional REDD+ approaches.**

VCMs supporting jurisdictional-scale programmes incentivize governments to review current policies and design land-use planning and implementation to avoid deforestation and forest degradation. The Warsaw Framework for REDD+ – currently being implemented by many tropical forest countries – was not developed as a market approach, meaning there are still many gaps that need to be addressed to fulfill the requirements for participating in high-integrity VCMs. Jurisdictional REDD+ approaches under VCMs offer opportunities to build on existing REDD+ efforts to maximize investments and pursue a coordinated and coherent approach to REDD+.

## **Aligning project and jurisdictional VCM initiatives with national REDD+ frameworks can help countries optimize access to different sources of climate and carbon finance and promote a consistent approach that allows meeting the various requirements of different public and private sources of finance.**

In many countries, there are inconsistencies in accounting approaches for NDCs, REDD+ programmes, and crediting initiatives under VCMs. To promote robust accounting, tropical forest countries can align their REDD+ reporting with national GHG inventory estimates and explore nesting approaches to support the consistency of accounting methods across national GHG inventories, projects, and programmes. Alignment of activities at different scales will also involve deploying a consistent approach to implement safeguards policies.

# Key messages



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## **To promote the long-term sustainability of climate mitigation efforts in the forest sector, scaled-up REDD+ funding, alongside carbon markets will be needed.**

Many countries face financing gaps for implementing mitigation activities in the forest sector, which, combined with higher costs from VCMs, can pose a barrier for access and participation. These challenges are compounded by market volatility and uncertainty that may limit the ability of tropical forest countries to adequately implement and sustain forest-based mitigation over time. Up-front investments, market transparency, and linkages between public policy goals and programmatic carbon finance could help address these challenges.

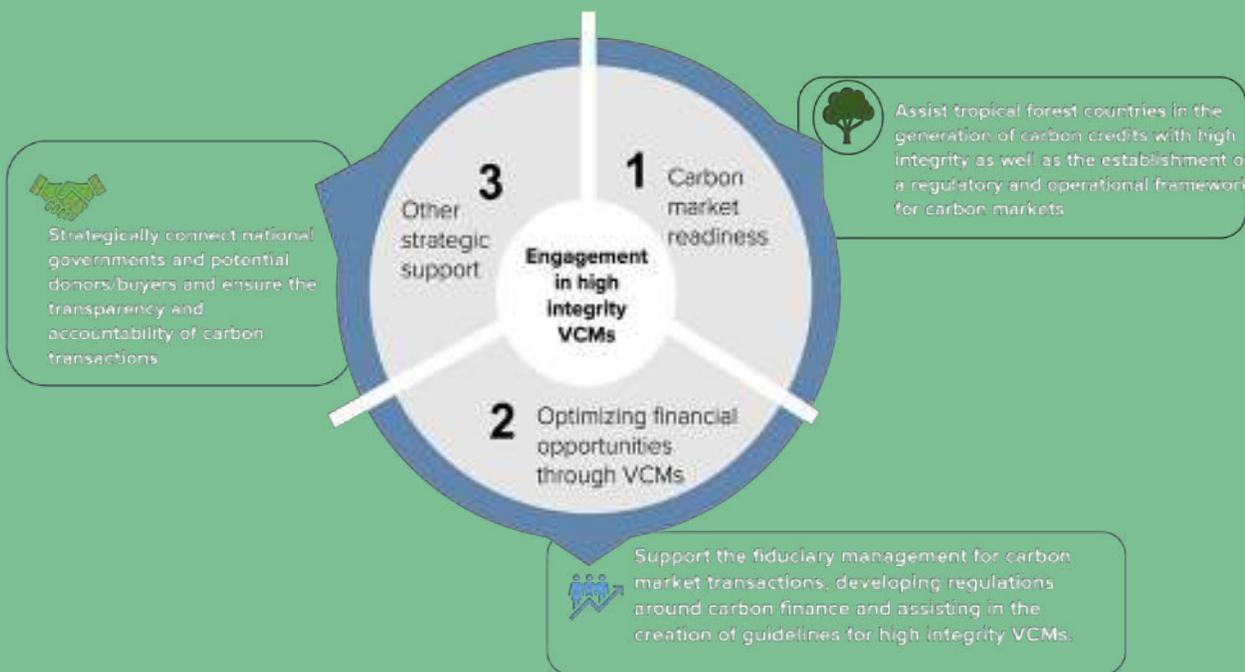
## **In response to opportunities and challenges related to access in VCMs, UNDP is assisting tropical forest countries in their carbon market readiness efforts, as part of a diversified financial strategy to support the implementation of NDCs (Box 4).**

The series of UNDP dialogues undertaken with representatives from tropical forest countries to discuss how to promote the high-integrity of forest-based mitigation in VCMs underscored the opportunities associated with accessing VCMs. However, countries also identified various challenges, including: the different scales and scope of implementation, the diversity of standards with different requirements, limited opportunities to engage directly with the private sector in VCM discussions, avoiding double counting, and aligning VCM initiatives with national frameworks.

UNDP aims to assist countries' efforts to engage and access high integrity VCMs by (i) supporting countries' carbon market readiness implementation; (ii) when requested by countries or potential donors, assist in the definition of in-country share and use of proceeds from carbon sales; as well as (iii) connecting countries with potential buyers and facilitating carbon market transactions, while respecting social and environmental safeguards and sustaining ambition. UNDP's supports countries efforts to create synergies between results-based payments and voluntary carbon-market finance to increase the overall volume of funds available to implement their NDCs. By fostering coordination between sectors with carbon market potential as part of an economy-wide, high-integrity approach, countries can ensure that the drive to secure financial benefit from the early sale of carbon credits does not negatively affect the achievement of their own climate targets.

#### Box 4. Promoting high integrity and supporting tropical forest countries access to carbon markets – UNDP strategic areas of work

UNDP strongly advocates for countries and private companies to demonstrate ambitious efforts to reduce emissions and enhance removals through the forest sector. UNDP’s Climate and Forests Programme is engaged in global initiatives aimed at developing guidelines for high-integrity VCMs, both for the demand and supply sides, and supporting tropical forest countries’ engagement and access to carbon markets. This support is guided by three streams of work:



### **1. Carbon market readiness.**

This line of action includes the technical support to generate emission reductions and removals carbon credits using high integrity private standards for jurisdictional REDD+. Carbon market readiness support includes assessing opportunities and challenges for specific countries to comply with the requirements from different VCM standards and developing implementation pathways to fulfill the gaps identified through the assessment. UNDP is also supporting country-level VCM access strategies with data and information to facilitate their engagement in high-integrity VCM transactions, align VCM finance flows with national climate policy and finance priorities; and, strategically connecting national governments with potential donors/buyers by assisting countries to develop proposals to access novel sources of carbon finance to drive and sustain increasingly ambitious emission reductions and removals from the forest sector. UNDO also supports countries in the development of regulation and infrastructure systems for tracking transactions and potential grievances to ensure vulnerable communities are protected.

### **2. Optimizing financial opportunities**

This line of action supports countries to strategically direct VCM investments to support the implementation of the NDC. Building on the experience gained serving as an accredited entity for the Green Climate Fund's REDD+ Results-Based Payment pilot program and other areas of support, UNDP can, when requested, support the development of benefit-sharing and financial plans aligned with the countries NDC. When there is such requirement from the investor, UNDP can support the fiduciary management of carbon market transactions. This includes channeling resources to forest countries, ensuring compliance with fiduciary duties, legal commitments, policy standards and oversight responsibilities, including adherence to UNDP Social and Environmental Standards.

### **3. Connect countries with potential donors/buyers and facilitating high integrity carbon market transactions.**

To increase countries' capacities to engage in carbon markets through the forest sector, UNDP has hosted a series of dialogues and workshops to create a space for forest countries to voice their concerns and priorities around VCMs. These events were also a space for building technical capacities from country representatives, sharing information and peer-to-peer exchange on specific issues.

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